

## Safety and Health

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## Valued Conditions Expressed by King County Residents

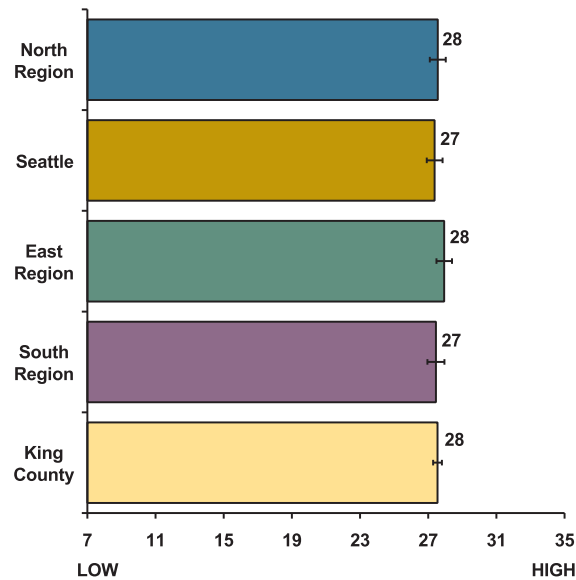
- *People are comfortable to walk freely on the streets and in parks of their neighborhoods at any time of day or night. There is respect for other people's property. The police have a known, regular, and friendly presence in neighborhoods and other areas and are quick to respond to calls. People trust that fire and police and emergency personnel will offer excellent protection.*
- *There are no violent acts, gunshots, drug trade or prostitution on the streets or in neighborhoods and schools.*
- *Family members and friends resolve conflicts in a peaceful manner (domestic violence and child abuse are prevented by the presence of positive adult role models, supportive friends, neighbors and relatives).*
- *Babies and children are healthy and have adequate nutrition, immunization and well-child check-ups.*
- *People maintain healthy personal lifestyles with regard to nutrition, exercise, and drugs and alcohol.*
- *Youth do not use substances or engage in early or unsafe sexual behavior.*
- *Everyone receives quality medical and dental treatment in a timely manner (everyone is covered by health care insurance for physical, mental, dental, vision, and alternative care services; people receive treatment from providers who are sensitive to cultural differences; the elderly and disabled are provided health care in their neighborhoods and homes; people receive immediate and quality treatment for drug and alcohol abuse).*

The valued conditions came from citizen opinion expressed as values and concerns in the telephone survey, focus groups, and in the civic and public forums. The valued conditions are expressed as "ideal" conditions—based on the vision of what residents want for themselves, their families and communities.

## Perceived Neighborhood Safety

Feeling safe and secure at home, work, and play is basic to people's sense of wellbeing.

Average Level of Perceived Neighborhood Safety  
King County, 1999

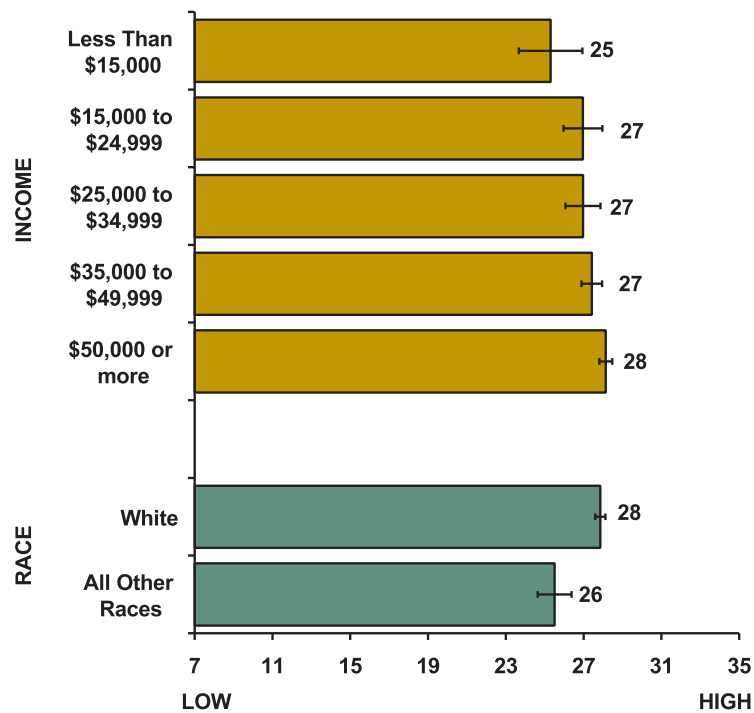


- King County adults were asked 7 questions about how often they worry about specific safety threats. Answers to these questions were added into a perceived safety scale with a possible score between 7 (Low) and 35 (High). A score of 7 means frequent worry and a score of 35 means no worry.
- The average (mean) score for adults in King County was 28. There were no significant differences in average perceived neighborhood safety level by region.
- The higher percentages in the table below indicate where more people are concerned about specific safety threats. For example, only 1% of King County adults worry about being hurt by someone they know, whereas about 20% worry about children's safety in the neighborhood and at school.

Percent of Adults Who Worry About Safety All of the Time or Often  
King County, 1999

I'm going to read a list of things people sometimes worry about in their neighborhood. For each one, please tell me whether you worried about it over the last 12 months:	North Region	Seattle	East Region	South Region	King County
...your physical safety in your neighborhood?	4%	5%	3%	5%	5%
...children's safety in your neighborhood?	18%	18%	15%	19%	18%
...your physical safety in your home?	5%	5%	4%	6%	5%
...children's safety at school?	21%	21%	16%	20%	22%
...being robbed or having your home broken into?	9%	10%	6%	12%	10%
...being hit, pushed or slapped by someone you know?	1%	1%	2%	1%	1%
...being physically attacked by someone you don't know?	2%	5%	2%	4%	4%

Average Level of Safety Felt, By Income and Race  
King County, 1999



- People with incomes of \$50,000 and higher feel safer in their neighborhoods than those with lower incomes.
- People who are white feel safer than people of other races.

#### Data Source, Definition, and Limitations

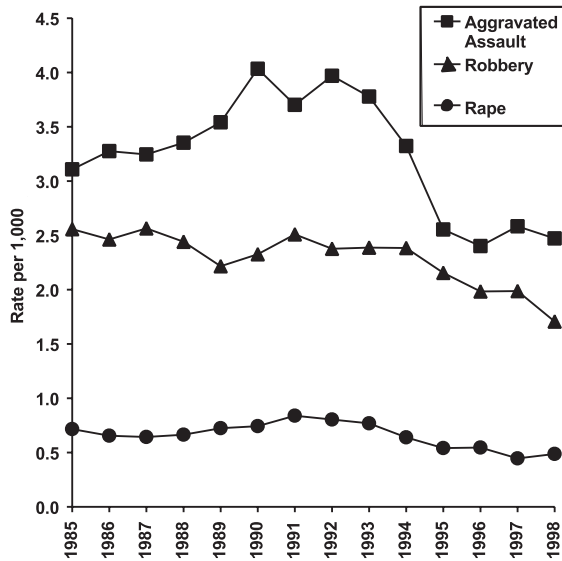
The safe neighborhood measures are from the King County Community Health Survey, 1999, which adapted questions on stressors and worries from the Eastside Village Healthy Worker Community Health Survey (Amy Schultz et al., University of Michigan).

The limitations of an English-only telephone survey include the following: a) people who do not have a telephone are missed, b) people who do not speak English do not participate, c) people who have less education and lower incomes tend to be underrepresented.

## Crime

Crime takes a toll on the health of our communities through loss of life, fear for physical safety, property damage, disintegration of community cohesion, diversion of public resources from social services, and incarceration. The FBI Crime Rate is a basic indicator of the level of serious crime. It includes eight major violent and property offenses, chosen both for their severity and frequency of occurrence.

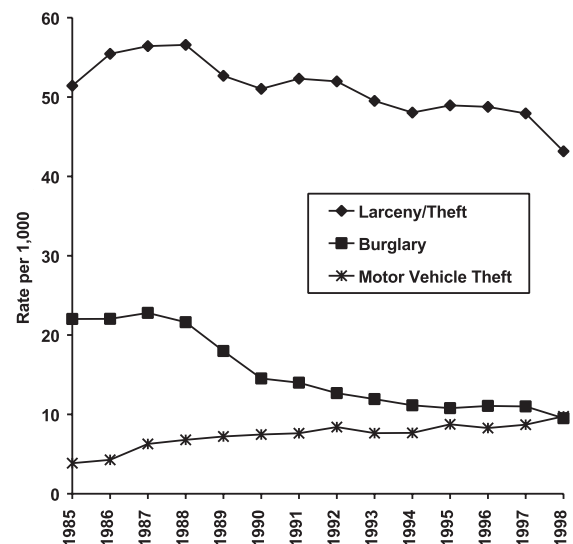
Rate of Major Violent Crime  
King County, 1985-1998



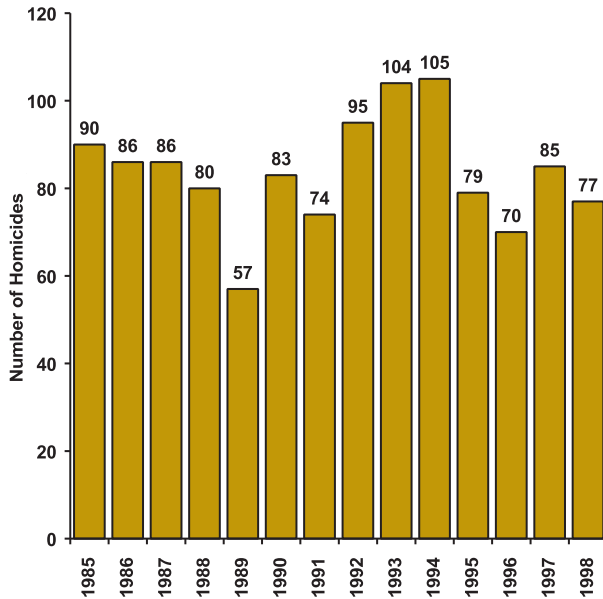
- The overall crime rate in King County has decreased significantly from a high of 92.7 per 1,000 in 1987 to a low of 67.6 per 1,000 in 1998 (in contrast to 57.2 per 1,000 in Washington State as a whole). The crime rate includes the four major violent crimes (shown at left) and the four major property crimes (shown below).
- The rate of major violent crimes in King County decreased between 1985 and 1998. Major violent crimes include murder and non-negligent homicide, forcible rape, robbery, and aggravated assault (homicide shown on next page).
- Aggravated assault is consistently the predominant serious violent crime, although it has shown a dramatic decline in the last decade. An assault is aggravated if it involves the use of a weapon or means likely to produce death or serious injury.

- Major property crimes include burglary, larceny/theft, motor vehicle theft, and arson (not shown). Despite a steady increase in motor vehicle thefts over the time period shown, total property crime rates have been decreasing since 1988.

Rate of Major Property Crime  
King County, 1985-1998



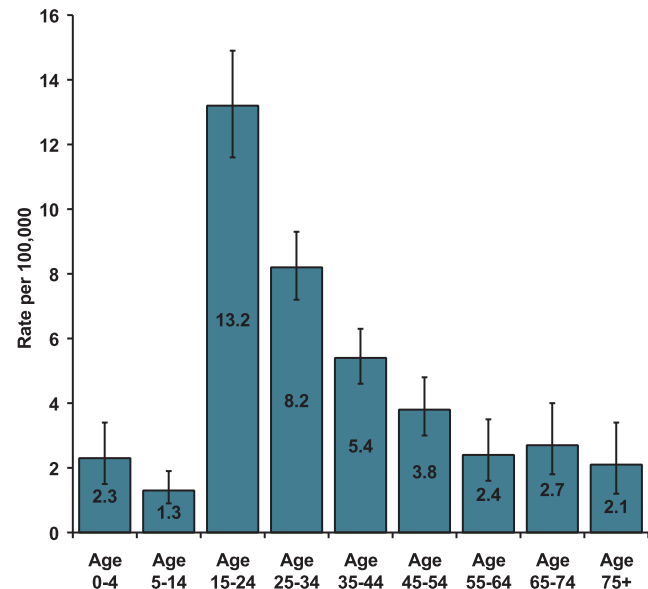
**Number of Homicides in King County  
1985-1998**



- In 1998 there were 77 murders in King County and 220 in Washington State.
- Overall, the murder rate in King County has declined significantly since 1985 (rates not shown).

- Homicide rates vary by age. In a ten-year period from 1989 to 1999, the highest rate of homicide was among 15 to 24 year olds.
- Between 1994 and 1998, Seattle had the highest homicide rate (7.9 per 100,000), followed by South Region (5.6), North Region (2.6), and East Region (2.0). The difference between North and East Regions was not statistically significant (data not shown).
- During that period, homicide victims were 9 times more likely to be African American than white, and 2.5 times more likely to be male than female (data not shown).

**Homicide Rate By Age  
King County Ten Year Average, 1989-1998**



### Data Source, Definition, and Limitations

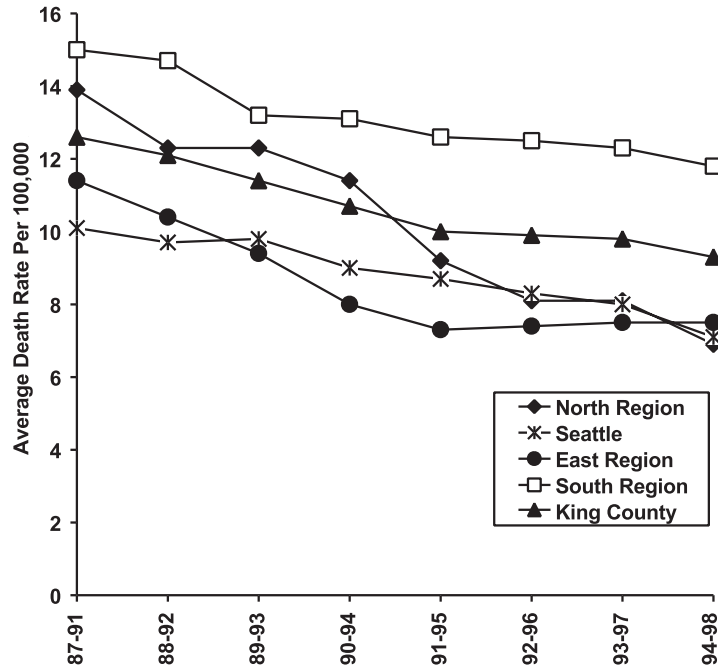
The Washington State Uniform Crime Reports are produced annually by the Washington Association of Sheriffs and Police Chiefs. Data are submitted monthly by individual law enforcement agencies in each county, and are consistent with FBI national crime reporting methods.

The crime rate is calculated as the sum of the eight major violent and property crimes divided by the King County population, and does not distinguish between offenses of varying severity. All major crimes that occurred in King County and were reported to law enforcement authorities are counted. The perpetrators and victims may or may not be residents of King County.

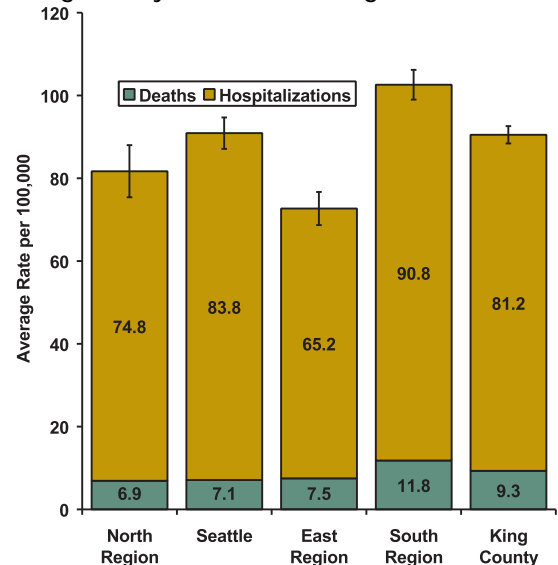
# Motor Vehicle Injuries And Deaths

Many injuries from motor vehicle crashes are preventable. Through education, mandating the use of seat belts, tougher laws against drunk driving, and engineering, we have seen a decline in the rate of death from motor vehicle crashes in recent years. The level of motor vehicle crash-related injuries is measured by deaths and hospital admissions.

Age-Adjusted Motor Vehicle Crash Death Rates  
King County, Five Year Rolling Averages, 1987-1998

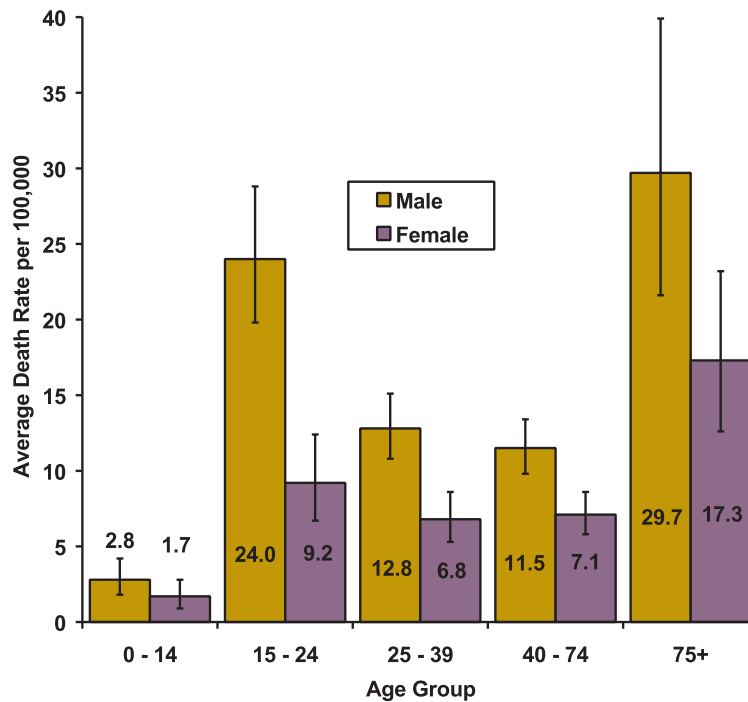


Age-Adjusted Motor Vehicle Crash  
Hospitalization and Death Rates  
King County, Five Year Average 1994-1998



- In 1998, there were 137 deaths and 1,381 hospitalizations of King County residents because of motor vehicle crashes.
- Both death and hospitalization rates have declined over the last decade. This is true for all four regions of King County.
- South Region residents have the highest rates of both death and hospitalization from motor vehicle crashes.

## Motor Vehicle Crash Death Rate, By Age & Gender King County, Five Year Average, 1994-1998



- Rates of motor vehicle-related injuries and deaths among King County residents vary significantly by both age and gender.
- From 1994 to 1998, the groups with the highest death rates were young males age 15-24 and males age 75 and older.
- Death rates among women are consistently lower than among men in all age groups (although the difference is not statistically significant in the youngest and oldest age groups).
- Hospitalization rates for motor vehicle-related injuries follow the same age and gender patterns.

### Data Source, Definition, and Limitations

Death certificate and hospital discharge data are from the Washington State Department of Health, Center for Health Statistics. Hospitalization data can only be coded to zip codes, while death data are coded to census tracts. As a result, the geographic boundary definitions for King County and the four regions are slightly different for the hospitalization analysis than they are for deaths.

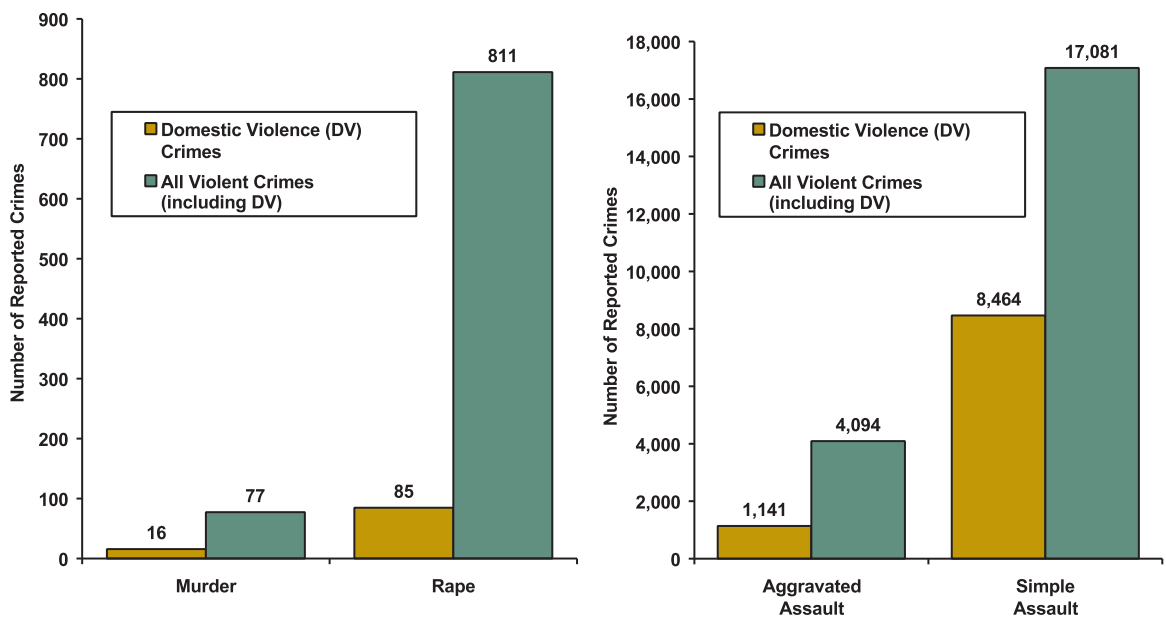
These two indicators are not necessarily a reflection of overall traffic safety in King County. Death and hospitalization data are coded by residence of the victim, rather than the place where the accident occurred. Residents of other counties who are injured in an accident in King County are not counted here. In addition, hospitalization discharge data do not capture minor injuries treated at the scene or in the ER without admission to the hospital.



## Family Violence

Violent abuse from intimate partners and other family members is a disturbing threat to the health and well-being of households and communities. Early identification of victims of child abuse and domestic violence may prevent the level of violence from escalating and thereby disrupt the generational cycle of abuse. Data on the actual amount of family violence is not available, but the number of reported crimes involving domestic relationships and the number of suspected child abuse cases accepted by Child Protective Services for investigation are available.

Number of Domestic Violence Crimes and All Violent Crimes By Offense  
King County, Three Year Average, 1996-1998



- From 1996 to 1998 in King County, there were an average of 12,296 domestic violence offenses per year including 16 murders, 85 rapes, 1,141 aggravated and 8,464 simple assaults, and 2,590 violations of protection/no contact orders per year. Data on violation of protection/no contact orders is incomplete for 1996, so this average is an undercount.
- During the same time period, 20.3% of murders, 10.4% of rapes, 27.9% of aggravated assaults, and 49.6% of simple assaults in King County involved a domestic relationship between the victim and the perpetrator. Percentages are not shown on the charts but can be seen by comparing the bar heights.
- In 1998, there were 15 domestic violence homicides. Of those victims, 2 were under the age of five and 3 were 65 years or older. Ten of the 13 adult victims were female.
- In a 1998 survey of King County adults, 17% of respondents said they had experienced either an assault or injury perpetrated by an intimate partner at some time in their lives (data not shown). The prevalence varied by region, with the highest percentage in South Region (20%) and the lowest in East Region (12%).

**Number of Children Age 0-17  
in Accepted Referrals to Child Protective Services  
King County 1993-1999**

	<b>Age 0-5</b>	<b>Age 6-12</b>	<b>Age 13-17</b>	<b>Total Age 0-17</b>	<b>Percent of Children Age 0-17</b>
1993	5,968	5,311	1,784	13,063	3.4%
1994	6,000	5,326	1,943	13,269	3.4%
1995	5,753	4,654	1,704	12,111	3.1%
1996	5,472	4,790	1,853	12,115	3.0%
1997	5,665	5,390	2,042	13,097	3.2%
1998	4,961	5,248	2,050	12,259	3.0%
1999	4,965	5,413	2,128	12,506	3.0%

**Number of Children Age 0-17  
in Accepted Referrals to Child Protective Services,  
King County Four Year Average, 1996-1999**

<b>Place</b>	<b>Age 0-5</b>	<b>Age 6-12</b>	<b>Age 13-17</b>	<b>Total Age 0-17</b>	<b>Children Age 0-17 in Region</b>
North Region	343	370	144	857	43,022
Seattle	1,425	1,347	551	3,323	95,983
East Region	420	440	196	1,056	96,534
South Region	2,365	2,264	822	5,451	170,453
Unknown	713	790	305	1,808	
King County	5,266	5,210	2,018	12,494	405,380

- Although domestic violence includes crimes against children, the term "child abuse" has a broader definition. Child abuse is the physical, psychological or sexual mistreatment, or physical neglect of children by their parents or guardians. Neglect is the most common form of child abuse. Like domestic violence, child abuse rates are difficult to estimate, because much abuse goes unreported.
- Child Protective Services (CPS) receives reports of suspected abuse involving children in King County. An "Accepted Referral" does not mean abuse has been substantiated, but that the case was screened according to legal guidelines and found to warrant further investigation. It is not known what proportion of accepted referrals in King County result in findings of actual abuse or neglect.
- Countywide, there has been very little change from 1993 to 1999 in the percentage of children age 0-17 accepted by Child Protective Services for investigation of abuse.
- From 1996-1999, an average of 12,494 referrals of children age 0-17 in King County were accepted by CPS each year. This represents 3.1% of all children in King County, 2.0% in North Region, 3.5% in Seattle, 1.1% in East Region, and 3.2% in South Region. Regional sub-totals are incomplete, however, because a large number of cases are missing address information.

### **Data Source, Definition, and Limitations**

Data on domestic violence are from the annual Washington State Uniform Crime Reports. The Washington Association of Sheriffs and Police Chiefs has collected domestic violence statistics from participating local law enforcement agencies since 1995. The first complete year of data for King County is 1996. Domestic violence includes crimes committed by past or current intimates, immediate or extended family members, or other members of the household regardless of familial relationship. Aggravated assault is distinguished from simple assault by the use of a weapon or means likely to produce death or serious injury.

Domestic violence figures include only the violent crimes that are reported to law enforcement authorities and are judged by them to involve a domestic relationship. These figures do not include other types of domestic abuse such as psychological abuse. Furthermore, not all law enforcement agencies in King County contribute data. Many physical acts of violence against family members are never reported. Data from the National Crime Victimization Survey show that adult females in the U.S. are three times as likely to be victims of family violence as adult males. According to this survey, female victims of non-deadly intimate violence were silent in 43% of cases, neither reporting the incident to police nor seeking help from a victims services agency.

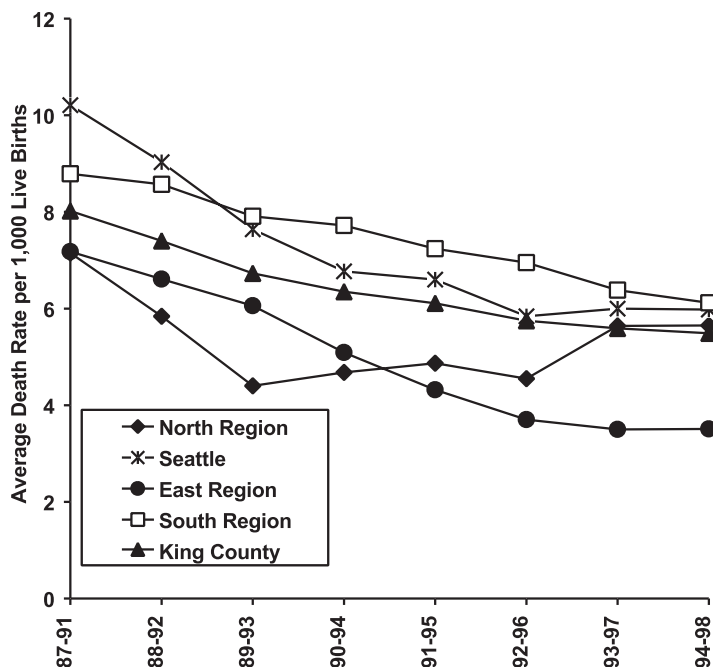
The Washington State Department of Social and Health Services, Division of Children and Family Services Information Systems provides data on the number of children accepted by Child Protective Services (CPS) for investigation or services. The total number of referrals does not include those for which age is not known or where the age is 18 or above. The referrals reported here include some duplication; some children are reported and accepted for investigation more than once in a year, so there are more referrals than victims. More than one child in a family or household may be counted as part of the same referral. Approximately 14.5% of all King County referrals between the years 1996 and 1999 could not be assigned to a specific region within the county.

Survey data on assault or injury perpetrated by an intimate partner are based on data from the Washington State Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS which is a random telephone interview survey of non-institutionalized adults age 18 and older that has been conducted in King County every year since 1987. Information concerning intimate partner assault or injury was first collected in the BRFSS in 1998.

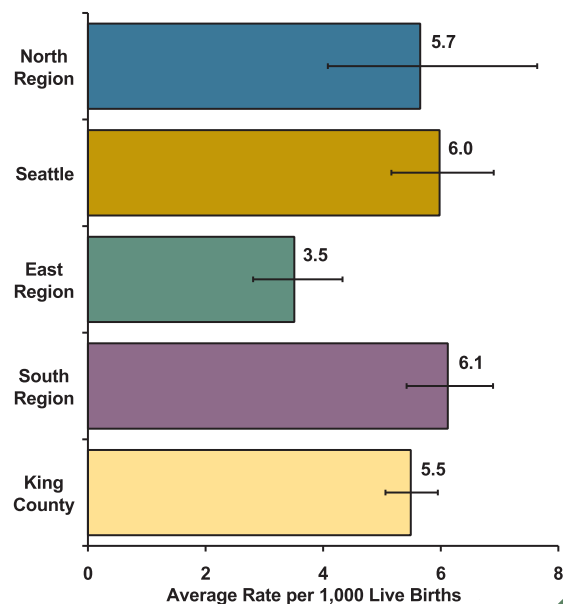
# Infant Mortality

Infant death reflects the health of pregnant women and infants, as well as the availability of intensive medical care for infants. The infant death rate is the number of deaths of infants under one year of age per 1,000 live births in a given year.

Infant Death Rates in King County  
Five Year Rolling Averages, 1987-1998

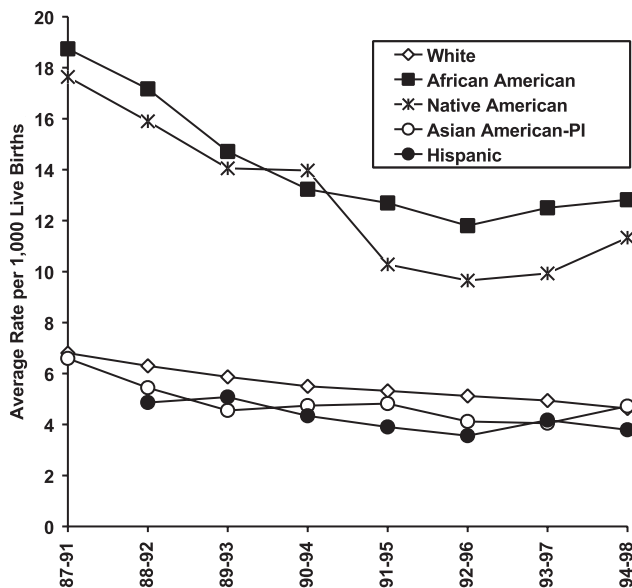


Infant Death Rates in King County  
Five Year Average, 1994-1998



- In 1998, there were 111 deaths of infants under one year of age in King County.
- Infant death rates have declined steadily since the early 1980s in King County, in Washington state, and nationally as well.
- Three of the four King County regions have also shown declining rates since 1987 - Seattle, East Region, and South Region.
- In North Region, there was an increasing trend between the years 1992 and 1997 which has since leveled off.
- The most recent regional infant death rates are very close to each other, except in East Region which is significantly lower than Seattle and South Region.

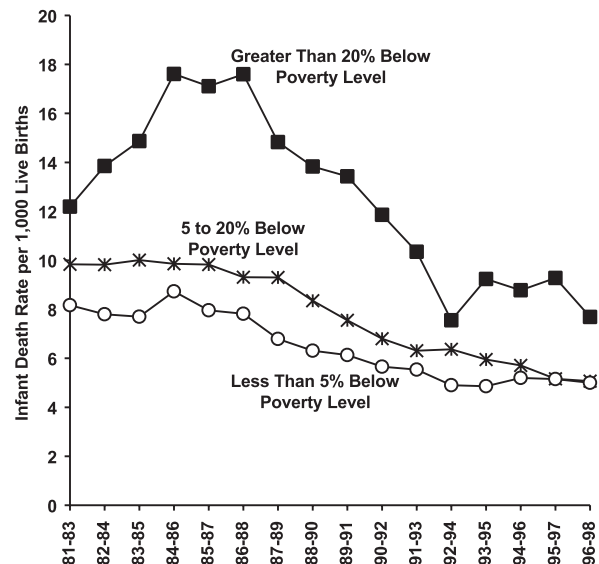
**Infant Death Rate By Race/Ethnicity  
King County, Five Year Rolling Averages  
1987-1998**



- Trends in infant death rates for the smaller race and ethnic populations are difficult to evaluate because the actual number of deaths is also small. For example, the apparent decline in rates among Native Americans between 1987 and 1998 is not statistically significant because there are generally 5 or fewer infant deaths per year in this group. This is also true for Hispanics.
- However, since 1987 there has been a significant decrease in the rates for whites and African Americans. The declining trend among African Americans has levelled off in recent years. The rate among Asian American-Pacific Islanders has not changed significantly since 1987.
- Infant death rates among African Americans and Native Americans remain higher than the rates for other groups.

- Disparities in infant death rates by level of neighborhood poverty have been decreasing since about 1986. In that year, infant death rates in high poverty areas of King County began to decline dramatically.
- Infant mortality rates in areas with less than 5% and 5-20% of the population living below the poverty level have been declining since 1981.
- The average infant death rate between 1996 and 1998 was higher among children born to women less than 20 years old than to women older than 20 (data not shown).

**Infant Death Rate By Poverty Level  
King County, Three Year Rolling Averages  
1981-1998**



### Data Source, Definition, and Limitations

Linked Birth and Death Certificate data are from the Washington State Department of Health, Center for Health Statistics. The geographic boundaries of King County and the four subregions are defined by aggregating census tracts.

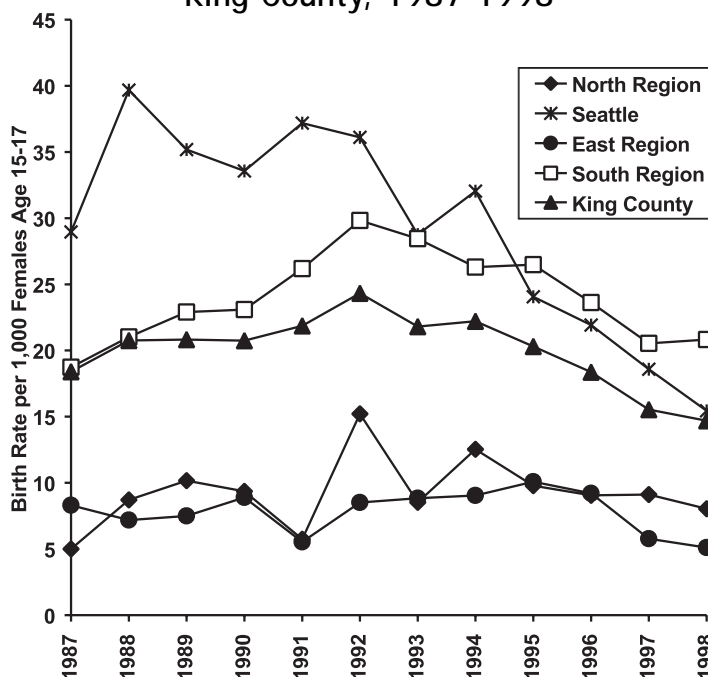
The infant mortality rate is the number of live-born infants who die before their first birthday in a given year, for every 1,000 infants born live in that year.

Poverty level groupings are based on annual household income reported in the 1990 U.S. Census, and these groupings represent the proportion of residents living below the federal poverty limit at that time. For a family of four in 1989, the poverty threshold was \$12,674; for a single person over age 65, it was \$5,947.

## Teen Births

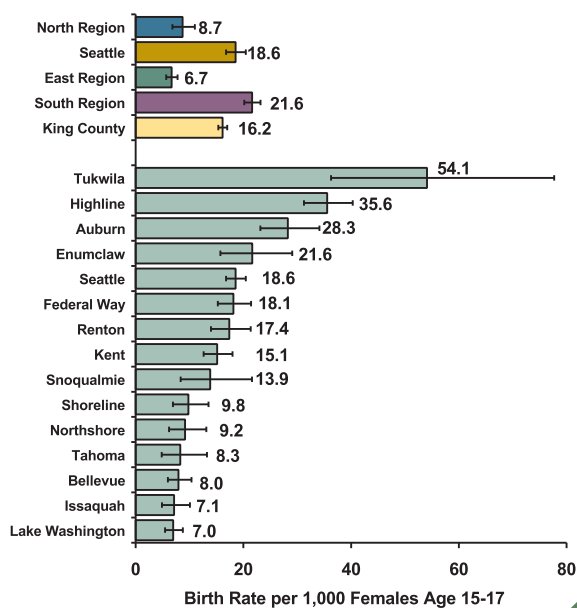
Infants born to mothers under age 18 have increased risk of death and low birthweight. Both the mother and the child tend to have fewer educational, economic, and social opportunities. The younger the mother, the more likely such problems will occur. Teen birth rates are calculated as the number of births to girls age 15-17 relative to the total number of girls in that age group.

Birth Rates Among Females Age 15-17  
King County, 1987-1998



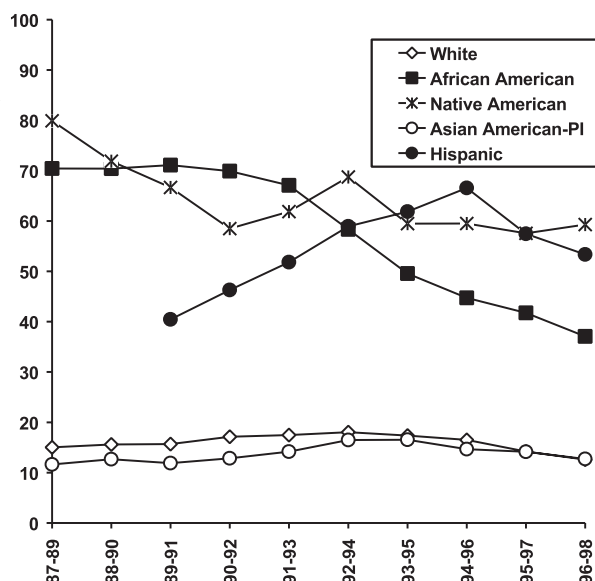
- Birth rates to King County girls age 15-17 declined from a high of 24.3 per 1,000 in 1992 to 14.7 per 1,000 in 1998.
- The decline has been especially sharp in Seattle.
- In 1998, the highest teen birth rate was in South Region (20.8 per 1,000) and the lowest in East Region (5.1 per 1,000).
- The average teen birth rates from 1996-1998 were higher in the Tukwila (54.1 per 1,000), Highline (35.6), and Auburn (28.3) School Districts than the average for King County.
- Vashon, Mercer Island, Riverview and Skykomish School Districts are not shown because of the small number of teen births.

Birth Rates Among Females  
Age 15-17, By School District  
King County Three Year Average, 1996-1998

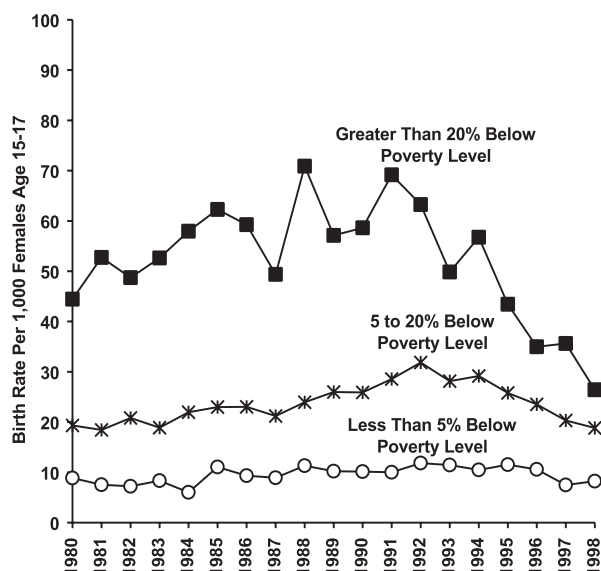


- Birth rates among teenage girls in high-poverty neighborhoods are significantly greater than in neighborhoods with lower poverty. Since 1980, the birth rates to teens living in areas where more than 20% of the residents live in poverty have ranged from 3 to 10 times higher than teens living in areas where less than 5% of residents live in poverty.
- Although this disparity has decreased in recent years, the 1998 rate in high poverty areas was still nearly 3 times higher than the rate for girls living in the low poverty areas.
- Teen birth rates for all three levels have been decreasing since 1992.

**Birth Rates Among Females Age 15-17  
By Race/Ethnicity, King County,  
Three Year Rolling Averages, 1987-1998**



**Birth Rates Among Females Age 15-17  
By Poverty Level, King County, 1980-1998**



- Teenage birth rates have been declining since the early 1990s among African Americans, Native Americans, Asian American-Pacific Islanders, and whites (although the decline in Native Americans is not statistically significant).
- The rate has increased significantly among Hispanics since 1989 (see data note below).
- Average teen birth rates from 1996-1998 were highest among Native Americans (59.3 per 1,000), followed by Hispanics (53.3), African Americans (37.1), Asian American-Pacific Islanders (12.7), and whites (12.6). However, the differences between the rates for Native Americans and Hispanics, and between Asian American-Pacific Islanders and whites were not statistically significant.

### Data Source, Definition, and Limitations

Data on the number of live births in King County is collected through birth certificate records by the Washington State Department of Health, Center for Health Statistics. For this indicator, only maternal age is considered. Data on the age of the father is under-reported on birth certificate records.

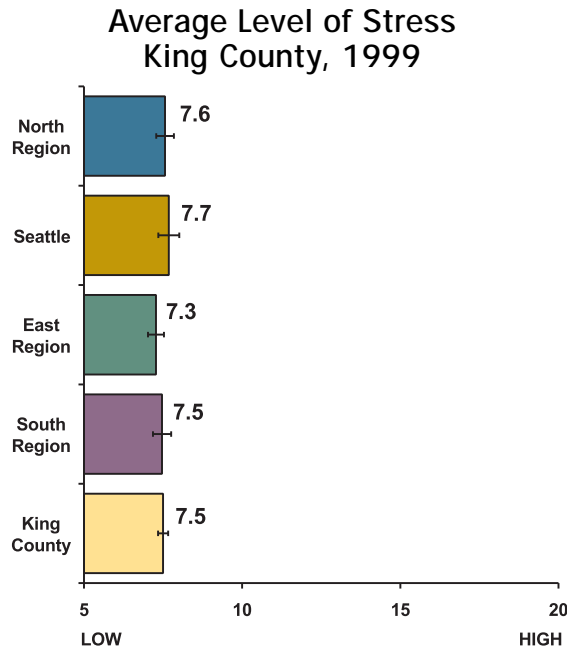
Poverty level groupings are based on annual household income reported in the 1990 U.S. Census, and these groupings represent the proportion of residents living below the Federal poverty limit at that time. For a family of four in 1989, the poverty threshold was \$12,674; for a single person over age 65, it was \$5,947.

Information on Hispanic ethnicity of the mother was not collected reliably on birth certificates before 1989. Because collection of this data is relatively recent, the number of Hispanic births may be artificially growing as more people adjust to reporting this information on the birth certificate. It is possible that the number of Hispanic adolescents in the County is underestimated; this would also produce an erroneously high rate.

The geographic boundaries of King County, the four regions, school districts, and the high, medium and low poverty areas are defined by aggregating census tracts. The school district boundary definitions used in this report are currently under review.

## Stress

Social psychological and economic circumstances can cause stress. Continuing anxiety, insecurity, low self-esteem, social isolation and lack of control over work and home life have powerful effects on health by “turning on” biological stress responses too often and for too long.



- Stress was measured by asking King County adults 4 questions about how often they have experienced certain symptoms of stress in the past 30 days. Answers to these 4 questions were added to create a perceived stress scale with a possible score between 5 (Low) and 20 (High).
- The average (mean) stress score for adults in King County was 7.5 as seen above. There were no significant differences in average stress level by region.
- The four questions used to make up the stress scale are in the table below. Between 7% and 25% of King County adults reported having feelings that are interpreted as stressful “very often” or “often” in the past 30 days.

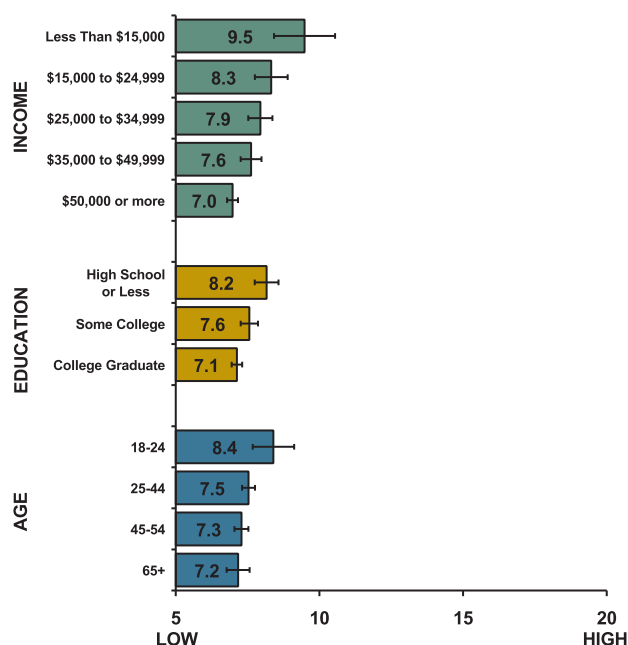
**Percent of Adults Who Report  
Confidence in Handling Stress “Very or Fairly” Often  
King County, 1999**

In the past 30 days, how often have you felt:	North Region	Seattle	East Region	South Region	King County
...that you were unable to control the important things in your life?	10%	10%	8%	13%	10%
...confident about your ability to handle your personal problems?*	85%	84%	88%	90%	87%
...that things were going your way?*	76%	74%	76%	76%	75%
...difficulties were piling up so high that you could not overcome them?	7%	8%	7%	7%	7%

\* answers were reversed for the scale.



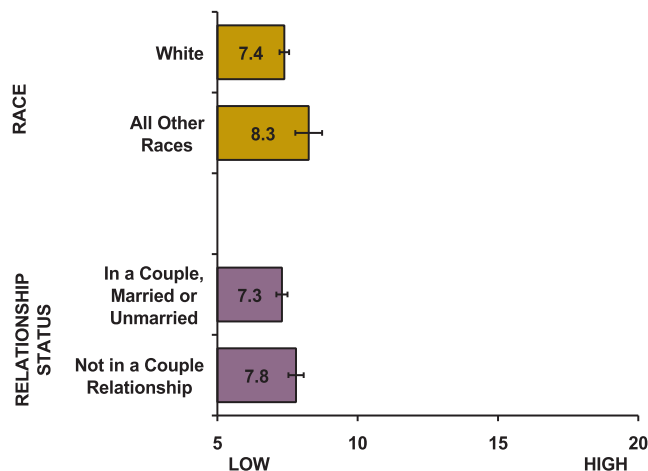
## Average Level of Stress, By Income, Education, and Age, King County, 1999



- People who have incomes above \$50,000 experience lower levels of stress than people with lower incomes.
- College graduates experience less stress than people with less education.
- Older residents (aged 65 years and older) experience less stress than young adults ages 18-24 years.

- People who are white experience less stress than people of other races.
- People who have a couple relationship (either married or unmarried) experience less stress than others who are separated, divorced, widowed or never married.
- The differences presented in the text above are statistically significant at the 95% confidence interval.

## Average Level of Stress, By Race and Relationship Status, King County, 1999



### Data Source, Definition, and Limitations

The stress measures are from the King County Community Health Survey, 1999, which used the shortened (telephone) version of the Perceived Stress Scale (Sheldon Cohen).

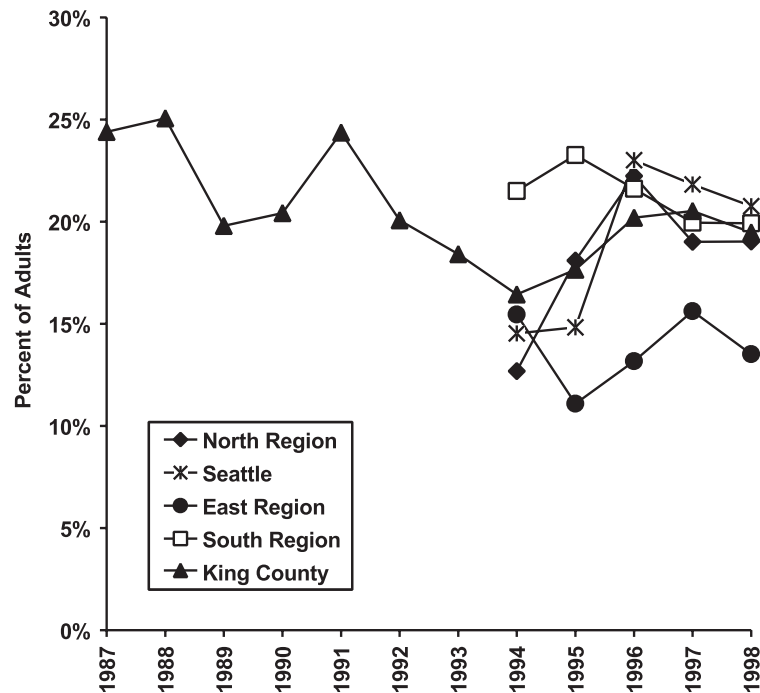
The limitations of an English-only telephone survey include the following: a) people who do not have a telephone are missed, b) people who do not speak English do not participate, c) people who have less education and lower incomes tend to be underrepresented.



## Tobacco & Alcohol Use

Cigarette smoking is a major risk factor for a variety of serious illnesses such as heart disease and lung cancer. Alcohol misuse increases the risk of motor vehicle crashes, chronic liver disease, and problems in personal relationships.

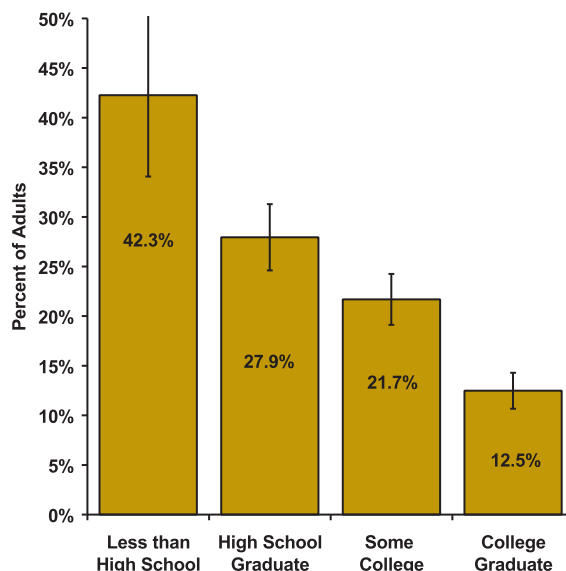
Percent of Adults Age 18+ Who Are Current Smokers  
King County, 1987-1998



- Smoking declined among adults in King County from 1987 to a low point in 1994, but has increased since then countywide and in Seattle.
- The average adult smoking rate between 1996 and 1998 was 20.1% in King County, but it was only 14.1% in East Region. Smoking rates in the other regions were not significantly different from each other.

- Between 1996 and 1998, 20.1% of King County adults were smokers.
- Smoking rates in King County vary by level of educational attainment. 42.3% of persons without a high school diploma smoke, versus 12.5% of persons with a college degree.
- Adults in the highest income brackets (making at least \$35,000 per year) are less likely to smoke than those in the lowest income ranges (making less than \$25,000 per year - data not shown).
- In general, adult smoking rates decrease with age. The highest average smoking rate from 1996-1998 was among 18-24 year olds (29.4%) and the lowest was among age 65 and older (10.9% - data not shown).
- There are also significant differences in adult smoking rates by race. Between 1996 and 1998, smoking rates were higher for African Americans (34.9%) and Native Americans (43.3%) than for whites (19.4%) and Asian American-Pacific Islanders (15.4% - data not shown).
- For the same time period, there was no significant difference between smoking rates among men and women.

**Percent of Adults Age 18+ Who Are Current Smokers, By Education King County, Three Year Average 1996-1998**



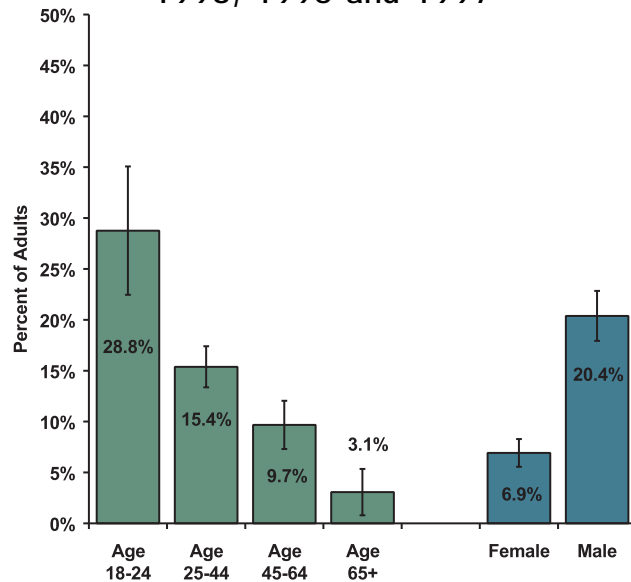
**Percent of Public School 12th Grade Students Who Smoked Cigarettes in the Past 30 Days 1991-1999**

	1991	1992	1993	1995	1998	1999
Seattle School District	21%	-	24%	33%	-	-
Snoqualmie Valley School District	27%	-	28%	22%	33%	-
King County*	-	-	-	22%	-	34%
Washington State	-	22%	-	24%	29%	35%
United States	28%	28%	30%	34%	35%	35%

\* The schools participating in the King County survey are not the same schools each survey year (1995, 1999). A dash (-) indicates that no survey was conducted that year.

- Approximately 80% of tobacco use occurs for the first time among youth aged less than 18 years (data not shown).
- Recent cigarette smoking among 12th grade students has increased locally, statewide, and nationally through the 1990s.
- The most recent local surveys indicate that 33% of Seattle (1995) and Snoqualmie Valley (1998) public school 12th grade students smoked cigarettes in the previous 30 days. These two school districts have participated regularly enough to have trend information, while other King County districts have not.

**Percent of Adults Age 18+  
Who Report Binge Drinking,  
By Age and Gender  
King County, Three Year Average  
1993, 1995 and 1997**



- Although the rate of binge drinking among King County adults has declined over the last decade, the average rate from 1993-1997 was 13.5%. The only significant regional differences were between East Region (9.4%) and Seattle (15.8% - data not shown).
- As with smoking, rates of adult binge drinking decrease with age. There is also a dramatic difference between genders. Between 1993 and 1997, the average binge drinking rate for men was 3 times the rate for women in King County.
- There were no significant differences in King County adult binge drinking rates by race/ethnicity, income or education from 1993-1997.
- There is a high association between binge drinking and drunk driving. 12.2% of adults who report binge drinking also report driving drunk, versus 0.4% of adults who do not report binge drinking.

**Percent of Public School 10th Grade Students  
Who Report Binge Drinking in the Past 2 Weeks  
1992-1999**

	1992	1993	1995	1998	1999
Seattle School District	-	24%	22%	-	-
Snoqualmie Valley School District	-	22%	21%	23%	-
King County* **	-	-	22%	24%	23%
Washington State**	18%	-	22%	28%	28%
United States	-	23%	24%	24%	26%

\* The schools participating in the King County survey are not the same schools each survey year (1995, 1998, 1999).

\*\* The 1999 figures for King County and Washington State are based on 30 days, not a 2 week period.

A dash (-) indicates that no survey was conducted that year.

- Binge drinking among 10th grade students has been increasing statewide and nationally since the early 1990s.
- Binge drinking has been increasing among students in other grades as well (data not shown).
- Binge drinking is more prevalent in male students than in females students (data not shown).

**Percent of Public School 12th Grade Students  
Who Drank Alcohol in the Past 30 Days  
1991-1999**

	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1995</b>	<b>1998</b>	<b>1999</b>
Seattle School District	55%	-	51%	46%	-	-
Snoqualmie Valley School District	-	-	56%	35%	54%	-
King County*	-	-	-	40%	-	51%
Washington State	-	52%	-	45%	52%	49%
United States	54%	51%	51%	51%	52%	51%

\* The schools participating in the King County survey are not the same schools each survey year (1995, 1999). A dash (-) indicates that no survey was conducted that year.

- Recent alcohol use among 12th grade students (in the past 30 days) has been around 50% locally, statewide, and nationally throughout the past decade.

#### **Data Source, Definition, and Limitations**

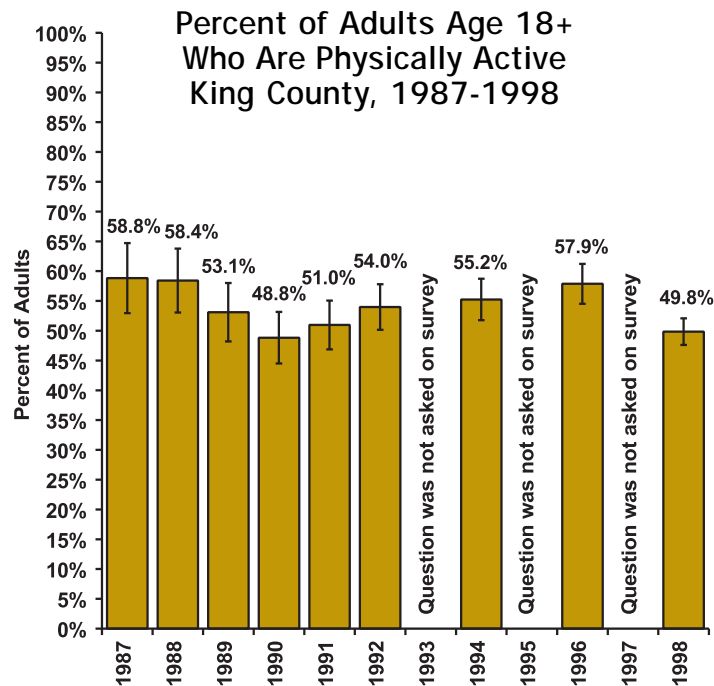
Data on adult smoking and binge drinking are based on data from the Washington State Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a random telephone interview survey of non-institutionalized adults age 18 and older that has been conducted in King County every year since 1987. The question on binge drinking is asked every other year. "Binge drinking" is defined as having five or more drinks on one occasion in the past 30 days. The geographic boundaries of the four King County subregions are defined by aggregating zip codes.

The limitations of an English-only telephone survey include the following: a) people who do not have a telephone are missed, b) people who do not speak English do not participate, c) people who have less education and lower incomes tend to be underrepresented.

Local and state data on youth use of tobacco and alcohol are from the Washington State Survey of Adolescent Health Behaviors, the Washington Youth Risk Behavior Survey, and the Seattle Teen Health Risk Survey. National data are from Monitoring the Future Study, University of Michigan.

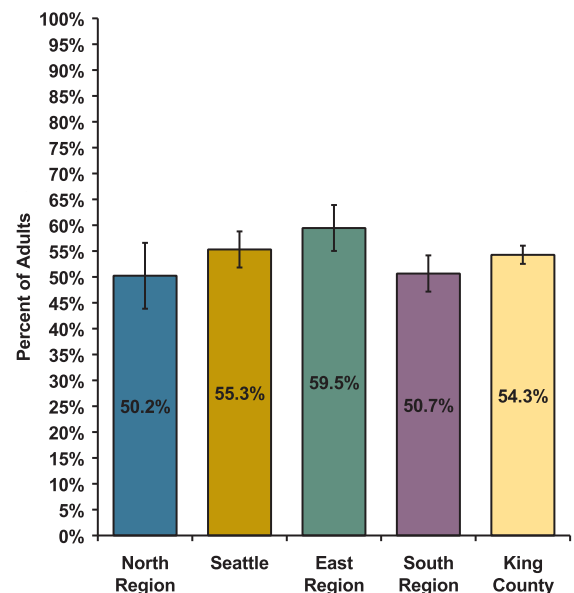
## Physical Activity & Weight

Controlling weight through proper nutrition and regular physical activity is an important part of a healthy lifestyle. Lack of exercise and being overweight are risk factors for serious illnesses such as coronary heart disease, hypertension and diabetes, and contribute to premature death.



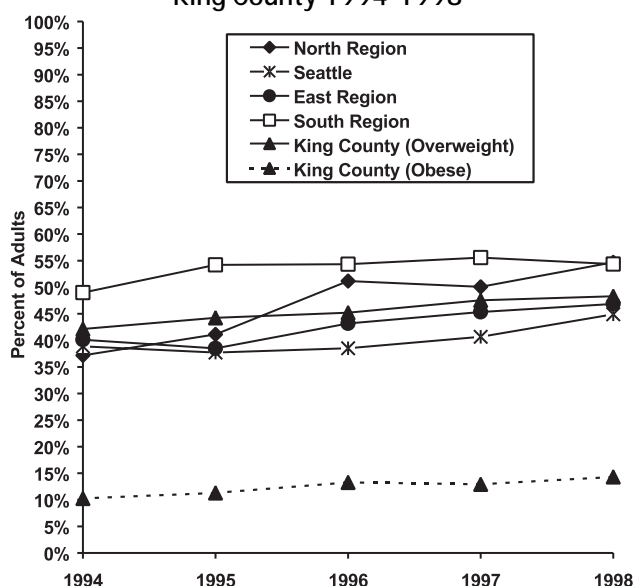
- A person is considered to be physically active if they reported having at least 20 minutes of leisure time physical activity 3 times per week.
- The percentage of adults in King County who are physically active increased from 1990 to 1996, but the trend has leveled off since then. The 1998 rate was actually lower than in the previous survey year.
- Physical activity rates are similar among the regions, although the rate is statistically higher in East Region than in South Region.
- People of non-Hispanic ethnicity (54.7%) are more likely to be physically active than Hispanics (42.4%). There are no differences by race (data not shown).
- College graduates and 18-24 year olds are more physically active than other adult groups (data not shown).
- Persons who make at least \$50,000 per year are more physically active than those who make less than \$25,000 per year (data not shown).

Percent of Adults Age 18+ Who Are Physically Active King County  
Three Year Average, 1994, 1996 & 1998

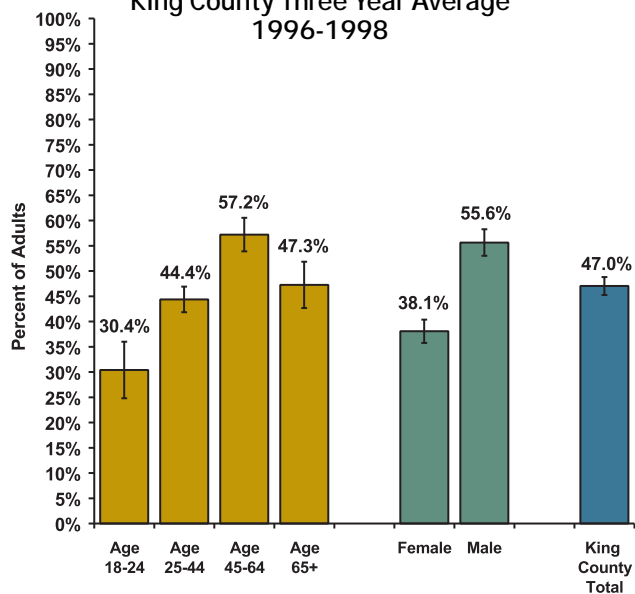


- Overweight is defined as having a Body Mass Index (BMI) that is greater than or equal to 25, and obese is a BMI of 30 or more. The BMI is the ratio of weight to height.
- The proportion of adults who are overweight has been increasing in King County since 1987 (partial data shown), and in North Region since 1994 (the first year of data available for the regions).
- Even though they represent a much smaller section of the population overall, the percent of King County adults who are obese has also increased dramatically since 1987 (partial data shown).
- From 1996-1998, South Region had the highest average percentage of overweight population (54.8%) and Seattle had the lowest (41.4%). The overall King County average was 47.0%.

Percent of Adults Age 18+ Who Are Overweight and Percent Who Are Obese King County 1994-1998



Percent of Adults Age 18+ Who Are Overweight, By Age and Gender King County Three Year Average 1996-1998



- The likelihood of being overweight in King County varies with age and gender. Rates of being overweight increase with age until age 65. Men are statistically more likely to be overweight than women.
- A higher percentage of African Americans (62.2%) and Native Americans (77.4%), and a lower percentage of Asian American-Pacific Islanders (27.9%) are overweight than whites (47.4% - data not shown).
- Persons with a college degree have the lowest overweight prevalence (42.2%) of any other group (data not shown).
- Although there are some differences in overweight prevalence by income level, they do not follow a consistent pattern (data not shown).

### Data Source, Definition, and Limitations

Data on adult physical activity and weight are based on data from the Washington State Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a random telephone interview survey of non-institutionalized adults age 18 and older that has been conducted in King County every year since 1987. The question on physical activity is asked only every other year. The geographic boundaries of the four King County subregions are defined by aggregating zip codes.

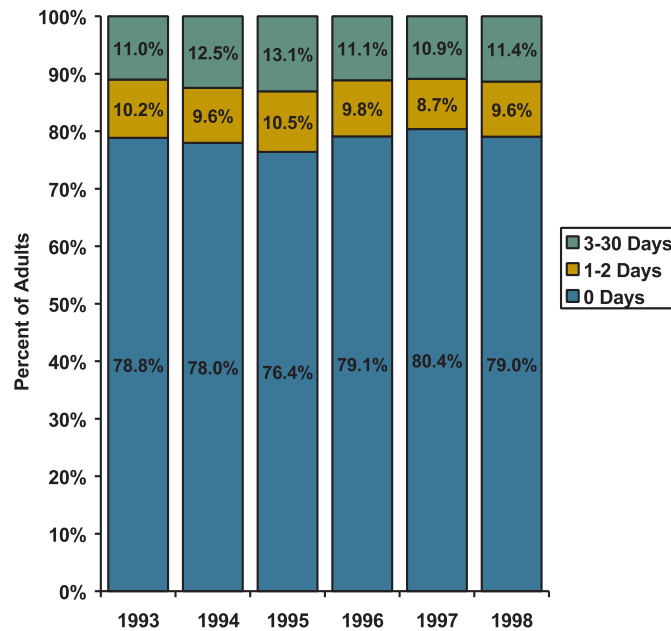
For a hypothetical person who is 5'10" tall and weighs 165 lbs, the Body Mass Index would be calculated as:  $BMI = 704.5 \times 165 \text{ lbs} / (70 \text{ inches})^2 = 23.7$  (where 704.5 is a conversion constant).

The limitations of an English-only telephone survey include the following: a) people who do not have a telephone are missed, b) people who do not speak English do not participate, c) people who have less education and lower incomes tend to be underrepresented.

## Restricted Activity Due to Physical/Mental Health

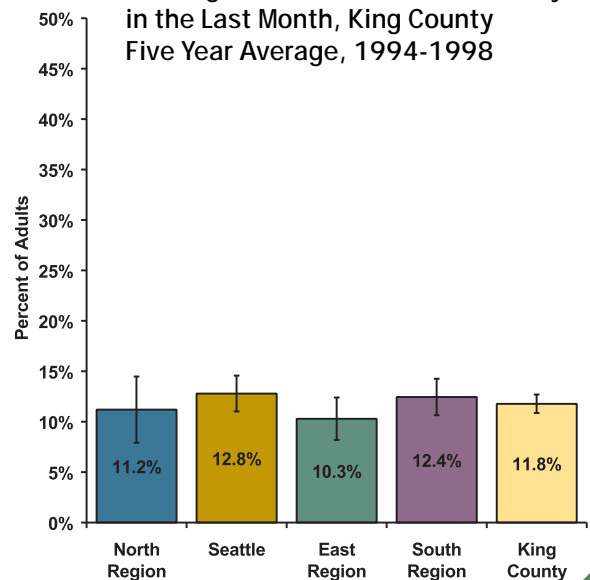
For individuals, leading a healthy life means having a full range of functional capacity, being able to have satisfying relationships, to work and to play. From a society perspective, healthy life means vital, creative, and productive people who are able to contribute to their families and communities.

Percent of Adults Age 18+  
for Whom Poor Physical or Mental Health Restricted Regular Activities  
in the Last Month, By Number of Days  
King County, 1993-1998

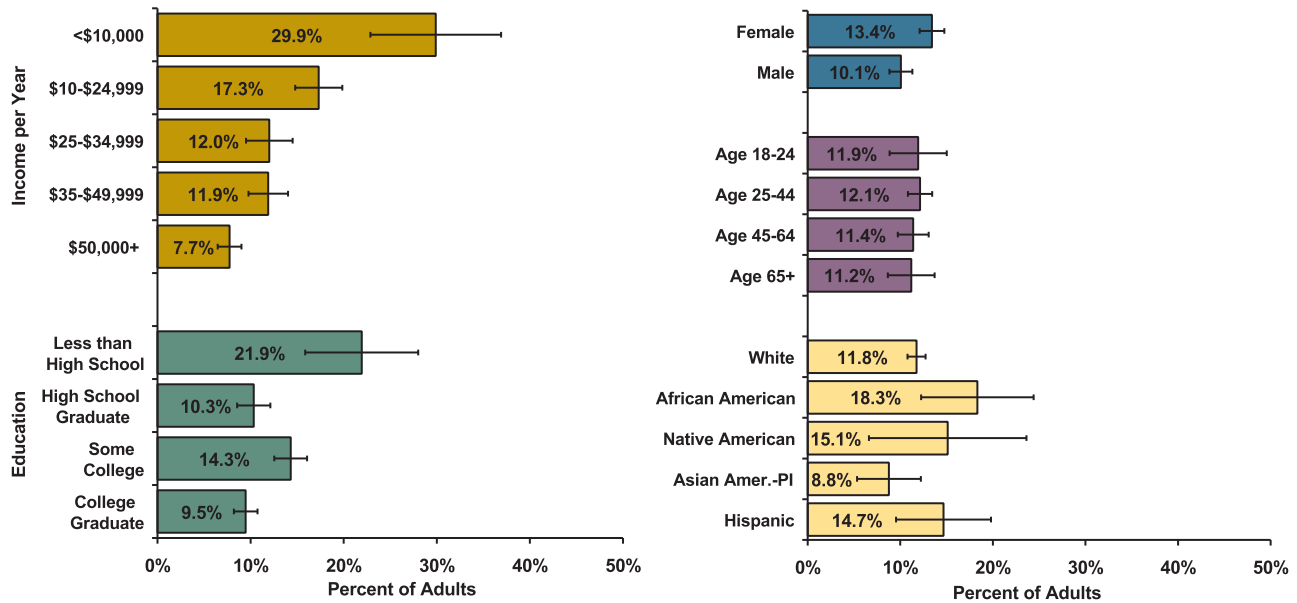


- A survey of King County adults asked the question: During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?
- In 1998, 5.0% of respondents said they experienced anywhere from 11 to 30 days of restricted activity in the last month due to poor health. 11.4% had at least 3 restricted activity days. This percentage has not changed significantly since 1993.
- There was very little regional variation in the average proportion of people with restricted activity days due to poor health.
- At the same time, 8.5% of King County adults rated their general health as only poor or fair. This percentage was highest in South Region (9.6%) and lowest in East Region (6.0% - data not shown).

Percent of Adults Age 18+  
for Whom Poor Physical or Mental Health  
Restricted Regular Activities 3 or More Days  
in the Last Month, King County  
Five Year Average, 1994-1998



Percent of Adults Age 18+ for Whom Poor Physical or Mental Health Restricted Regular Activities  
3 or More Days in the Last Month, By Income, Level of Education, Gender, Age, & Race/Ethnicity  
King County, Five Year Average, 1994-1998



- There is an inverse relationship between income and restricted activity days. Only 7.7% of people with an income of at least \$50,000 per year have 3 or more restricted activity days per month. In contrast, 29.9% of people who earn less than \$10,000 report 3 or more restricted activity days.
- The relationship between restricted activity days and level of education does not follow a consistent pattern.
- A greater percentage of women (13.4%) than men (10.1%) experienced at least 3 days of restricted activity due to poor health.
- There were no significant differences in restricted activity days by age. However, 18-24 year olds reported an average of 4.8 days of poor mental health in the last month, while persons age 65 and older only had 1.7 days (data not shown).
- By race, the highest percentage of restricted activity days was among African Americans (18.3%), and the lowest percentage was among Asian American-Pacific Islanders (8.8%).

#### Data Source, Definition, and Limitations

Data are from the Washington State Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a random telephone interview survey of non-institutionalized adults age 18 and older that has been conducted in King County every year since 1987. Regional data are only available since 1994. The geographic boundaries of the four King County subregions are defined by aggregating zip codes.

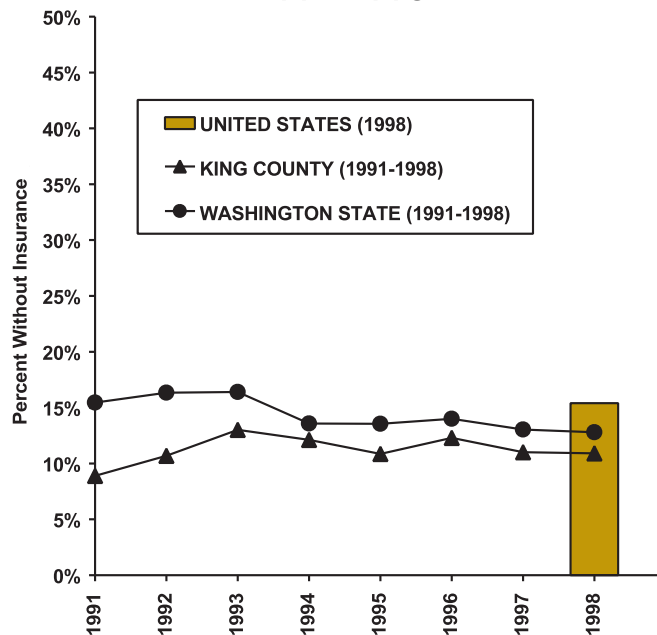
The limitations of an English-only telephone survey include the following: a) people who do not have a telephone are missed, b) people who do not speak English do not participate, c) people who have less education and lower incomes tend to be underrepresented.



## Health Insurance Coverage and Access

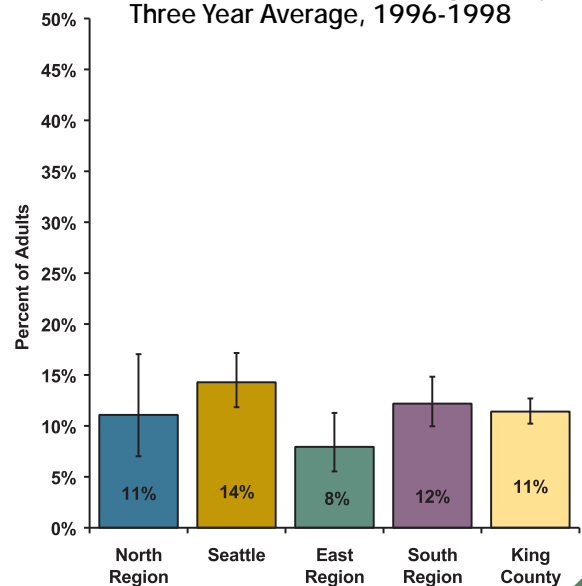
Most individuals and families today are unable to pay for the high cost of health care without an insurance policy that partially or fully covers the cost. Researchers have documented a relationship between lack of health insurance and increased risk of death and hospitalization from causes that may be preventable.

Percent of Adults Age 18-64  
Without Health Insurance  
King County, Washington State, and United States  
1991-1998



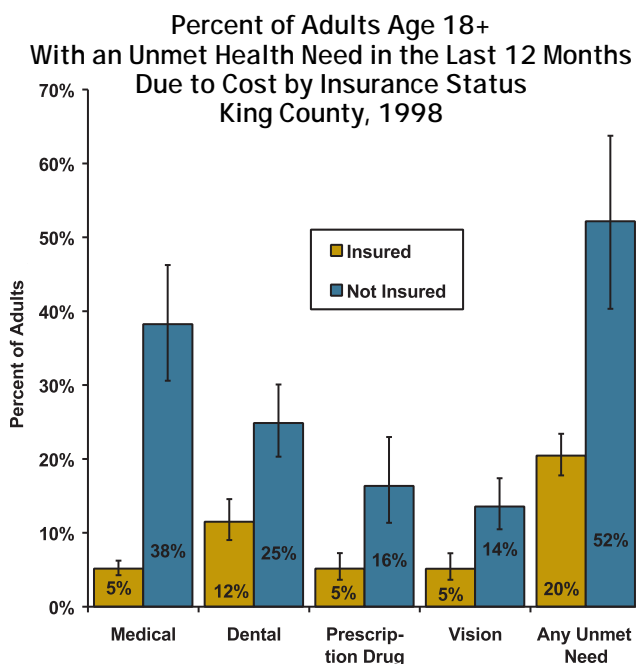
- In 1998, the percent of adults under the age of 65 who did not have any health insurance coverage was higher for the United States overall (15%) than for both Washington State (13%) and King County (11%). Uninsured rates in Washington State declined from 1991 to 1998. There was no significant change in King County.
- Within King County, the highest uninsured rate was in Seattle (14%) and the lowest was in East Region (8%).
- From 1996-1998, 23% of King County adults age 18 to 24 lacked medical insurance, more than double the rate overall. 8% of children under 18 were not covered by insurance. This represents over 30,000 children in King County (data not shown).
- Medicare or other medical coverage is almost universal for those age 65 and older.

Percent of Adults Age 18-64  
Without Health Insurance, King County  
Three Year Average, 1996-1998



- From 1996 to 1998, 33% of King County adults under age 65 with incomes in the \$15,000 to \$24,999 range were uninsured. This figure has more than doubled since 1991, and is even higher than the uninsured rate for the lowest income group. 28% of those who make less than \$15,000 per year were uninsured. Only 3% of those with an income of \$50,000 or more lacked health insurance (data not shown).
- King County adults under age 65 with less education are also less likely to have medical insurance. 37.1% of those without a high school diploma lacked insurance, compared to only 6.0% of college graduates (data not shown).
- Adult males under age 65 (13.5%) were more likely to be uninsured than females (9.3% - data not shown).
- Many King County adults - including those over 65 - do not have coverage for other health services even if they are insured for physician services. Survey data from 1996 & 1998 indicated that on average 41% of adults lacked vision care insurance, 34% lacked dental care, 28% lacked mental health care, and 18% lacked prescription drug coverage (data not shown).

- King County adults who are uninsured are more likely to be unable to see a health care provider because the cost is prohibitive than those with insurance. Over 50% of uninsured adults report an unmet medical, dental, prescription drug, or vision care need within the past year.
- An unmet dental need is reported by one in four who did not have dental insurance, over twice that seen in those with dental coverage.
- On average, almost half of those respondents with an unmet need also say it has limited their activities for one or more days.



### Data Source, Definition, and Limitations

Data on medical insurance coverage (e.g. for the services of a physician) and unmet medical needs are from the Washington State Behavioral Risk Factor Surveillance System (BRFSS). Data on insurance coverage specifically for dental, mental health, vision, and prescription drug services are from the King County Access to Care Survey. Both are random telephone interview surveys of non-institutionalized adults age 18 and older. Data on medical insurance coverage by age are from the Washington State Population Survey, 1998 (an all-ages telephone survey). The geographic boundaries of the King County subregions are defined by aggregating zip codes.

There are significant gaps in the mental health coverage data that may affect the validity of the results. About one third of respondents did not know if they had mental health coverage.

The limitations of an English-only telephone survey include the following: a) people who do not have a telephone are missed, b) people who do not speak English do not participate, c) people who have less education and lower incomes tend to be underrepresented.